## **Optical Attenuating Underchip Encapsulant Numbering List** guide pin holder glass substrate 12 TO can MT ferrule/waveguide 14 optical device apertures in the ferrule 16 wire bonds ribbon fiber 18 spacer 1st surface of the waveguide 20 header optically clear underfill additive dye 22 can 1st surface of the substrate 24 lense 2nd surface of the substrate 26 normal transmission axis 90 degree bend conductive traces conductive pads/bumps alignment apertures in the substrate optical ports darkened zones optical converter assembly boring fixture 42 PCB recognition module optical array/devices laser 1 transmission paths laser 2 guide pins